

Overview

Fish products of 6 Asian countries

To update basic information on fish products, six ASEAN countries participated in a 1989-90 survey which also identified product quality level and the constraints in marketing and promotion. Presented here is an overview of the 11 main categories (alphabetical order) of fish products resulting from the survey in Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand.

Boiled products

Boiled products are available in all participating countries except in the Philippines and Brunei Darussalam. They are produced either by cooking in boiling water or steam. They are also generally described by most countries as salted and boiled fish and can be eaten either plain, with chili paste or curry and are consumed together with rice or porridge.

Pelagic fish are most commonly used, e.g., Indian mackerel, horse mackerel, scad, anchovy or trevallies. The fish is cleaned and arranged on bamboo baskets or ceramic basins. Salt can be added in between the layers of fish. Cooking is done by steaming or by immersing the basket of arranged fish into the boiling brine water.

Canned products

Canned products are processed in Indonesia, Philippines and Thailand. The principle of canning is similar in most countries. Cleaned and gutted, the fish is packed in cans and precooked before sauce or liquid is added. After seaming, the canned product is sterilized and cooled before labelling. Canned sardine in tomato sauce is exported in increasing volume from the Philippines.

Comminuted products

Comminuted products are produced and consumed in all six countries. Made from minced meat and *surimi*, they include fish jelly products, fish and prawn sausages and burgers. These are eaten by themselves, or in soups, and cooked with noo-

dles, rice or vegetables.

Comminuted products are often produced directly from fresh fish such as wolf-herring, barracuda, bigeye snapper, threadfin bream, lizardfish, round herring, scad, Indian mackerel and tuna. The main machineries used are meat-bone separator, mincer, mixing/grinding machine, forming machine, and water-bath and cooking facilities. The ingredients used are salt, sugar, oil, flour, monosodium glutamate, water and vegetables.

The products are normally packed in polyethylene bag, palm leaf, styrofoam tray with wrapping film, vacuum pack or wrapped up at time of sale to consumers.

Cured products

Cured products are only consumed and produced in the Philippines. They are generally processed by pickling or salting without drying. The fishes used are skipjack, herring, roundskad, sardine and mackerel.

The process involves washing the raw materials and saturating these with salt. It is then washed with 2% salt. The cured product is packed in glass bottles, wooden boxes or plastic containers. If wooden boxes are used, salt water is drained away before packing.

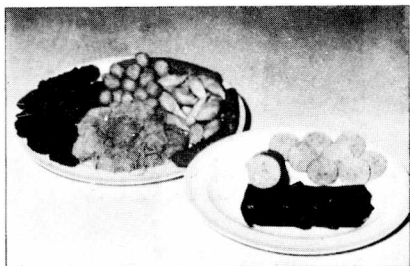
Dried products

Dried products are widely available and popular in all six countries. These are salted dried products which are usually deep fried or broiled before serving. They are also used in soup and porridge or cooked with noodles, vegetables and meat.

Dried products are usually packed in polyethylene bags, hard cardboard boxes, wooden boxes, braided rattan/bamboo baskets, paper bags, sacks or barrels.

Fermented products

Fermented products are processed in all six countries except Singapore. The process involves the addition of salt to fish or shrimp or the liquefaction of fish which is then allowed to ferment. This will result in



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Dept. Fish. Malaysia

the production of fermented fish, fish paste or shrimp paste (*bago-ong*). The salt-fish mixture can be sun-dried or left to ferment in a fermenting vat, earthenware jar, concrete tank, plastic drum, oil drum or oil can.

Fermented products are packed in glass bottles, jars or cans, polyethylene bags, glazed earthenware pots, bamboo baskets tins, banana leaves or plastic boxes. They can be eaten with rice, cooked with vegetables, prepared with onion, chili, spices or used in other ways.

Fish meals

Fish meals are produced in all participating countries except Brunei Darussalam. These are used as animal feed and fertilizer, not for human consumption. Raw materials used are trash fish/trawl by-catch, sardine and scraps from fish processing plants. The raw materials undergo washing, cooking or boiling, pressing, crushing, drying, mincing and packing.

Production of fish meal has increased in recent years to supply the demand of a flourishing aquaculture industry among the countries surveyed.

Frozen products

Frozen products are produced and exported from all the participating countries except Brunei Darussalam. These are quick frozen in blocks or individually and are boiled, fried, steamed, pickled or cooked in various ways before serving.

Fishes used are generally red snapper, painted sweetlip grant, malabar snapper, tilapia, catfish, dory, shark, sword fish, tuna, red mullet, grouper, mackerel, pomfret and sea bream. The shrimps used are white shrimp, pink shrimp, black tiger shrimp and sand shrimp. The raw materials are cleaned, cut/filleted, cooked or raw, packed and finally frozen by air-blast, contact or IQF (individual quick freezing) freezer.

Powdered products

Powdered products are also known as floss, granulated or flaked products. They are made from by-products of dried

prawn or the mince from shark, ray, snapper, or threadfin bream and mixed with ingredients to taste. They are served with bread or rice, used in soup or as a snack.

The process involves cutting the fish and soaking it in 2% brine for 10-15 minutes twice. The mince is then separated from the bones and skin. The fat is removed by washing the meat. The excess water is then removed by passing the washed mince through a screw press. The mince is heated and mixed with ingredients (soy sauce, salt and sugar) before finally drying.

Smoked products

Smoked products are produced in all participating countries except Singapore. These are fish products preserved by smoking and can be served fried or cooked with ingredients such as chilli, tamarind and salt and can be eaten with rice, salads or noodles.

The fish is washed, soaked in brine, and precooked and dried before smoking, cooling and packing. The products can be stored in polyethylene bags, wrapped with paper, or packed in basket with banana leaves or newspaper. These are stored at room temperature, refrigerated or frozen.

Other fish products

Other fish products include crackers made from prawn, squid or fish; barbecued fish (*satay* in Malaysia and Thailand), prepared cuttlefish and seaweed (*gulamang dagat* in the Philippines)

Fish crackers are usually deep fried till expanded and give a crispy bite. Shrimps and squids are generally used. Ingredients added are tapioca flour, pepper, salt, baking powder, taste enhancer and water. The process involves mincing, mixing, forming, steaming, cooling, adding of color, slicing or cutting, drying and finally packing.

Source: 1991. **Southeast Asian Fish Products**, compiled by Ng Mui Chng, Hooi Kok Kuang & Katsutoshi Miwa. Second edition. SEAFDEC/Marine Fisheries Research Dept., Singapore.